

REMARKS

Claims 38-70, 111, 113-124, 126-137, 139-150, 152-163, 165-177, 179-191, 193-205, and 207-218 are pending in the application. No claims have been added or canceled in this paper.

Claims 38-70, 111, 113-124, 126-137, 139-150, 152-163, 165-177, 179-191, 193-205, and 207-218 stand rejected.

Claims 163, 177, 179-191, and 205 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 38-52 and 58-65 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,748,611 issued to Allen et al. (“*Allen*”). Claims 111, 113-124, 126-137, 139-150, and 152-162 stand rejected under § 102(e) as being anticipated by U.S. Patent No. 6,490,246 issued to Fukushima et al. (“*Fukushima*”).^{*} Claims 163, 177, 191, and 205 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fukushima* in view of U.S. Patent No. 5,825,772 issued to Dobbins et al. (“*Dobbins*”). Claims 113-123, 152-162, 165-176, and 207-218 stand rejected under § 103(a). Claims 126-136, 139-149, 179-190, and 193-204 stand rejected under § 103(a) as being unpatentable over

^{*} The Office Action also states on p. 6 that claims 163, 165-177, 179-191, 193-205, and 207-218 stand rejected under § 102(e) as being anticipated by *Fukushima*. However, Applicant understands this indication to be a clerical error, since the explanations in the Office Action relating to § 102(e) do not mention these claims. In a separate discussion, the Office Action does at least partially address these claims—with regard to § 103(a). Accordingly, Applicant understands these claims to be rejected under § 103(a), and has responded to those rejections below.

Fukushima. Claims 53-57 and 66-70 stand rejected under § 103(a) as being unpatentable over *Allen* in view of *Fukushima* and further in view of *Dobbins*.

The above amendments add no new matter. Applicant respectfully submits that the pending claims are allowable in view of the remarks presented herein.

Formal Matters

The Office Action is silent regarding the limitations of Applicant's dependent claims 113-123, 126-136, 139-149, 152-162, 165-176, 179-190, 193-204, and 207-218 which stand rejected under § 103(a). The Office Action only states that these claims "are rejected because they depend on their parent claims." **The Office Action appears to have misapplied the standards of patentability under § 103(a) with regard to these claims.**

The rejections of these claims are improper because they are not supported by any valid reasoning to explain the rejections under § 103(a). In particular, the Office Action does not even appear to assert that any of the limitations of the dependent claims may be found in the cited references. Applicant maintains that these dependent claims are allowable under § 103(a), because the Office Action fails to set forth any reasoning in support of these rejections, and further because Applicant does not find the limitations of these claims in the cited portions of the references.

In addition, **the Office Action does not set forth any explanation for the rejections of claims 66-68.** The Office Action indicates on p. 8 that these claims stand rejected under § 103(a) over *Allen* in view of *Fukushima* and further in view of *Dobbins*, but does not even appear to contend that the limitations of these claims could be found in the cited portions of the references. Applicant maintains that these dependent claims are allowable under § 103(a),

because the Office Action does not provide adequate grounds for the rejections of these claims, and additionally because Applicant does not find the limitations of these claims in the cited references.

Rejections Under § 112, second paragraph

Claims 163, 177, 179-191, and 205 stand rejected under § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant has amended independent claims 163, 177, 191, and 205. Claims 179-190 depend on claim 177. Applicant respectfully submits that, as amended, the claims are allowable under § 112, second paragraph. Accordingly, Applicant respectfully requests that the rejections under § 112, second paragraph be withdrawn.

Rejections Under § 102(e)

Claims 38-52 and 58-65 stand rejected under § 102(e) as being anticipated by *Allen*. Claims 111, 113-124, 126-137, 139-150, and 152-162 stand rejected under § 102(e) as being anticipated by *Fukushima*.^{*} Applicant respectfully submits that the claims are allowable under § 102(e) because the cited portions of *Fukushima* fail to disclose each limitation of the pending

^{*} The Office Action also states on p. 6 that claims 163, 165-177, 179-191, 193-205, and 207-218 stand rejected under § 102(e) as being anticipated by *Fukushima*. However, Applicant understands this indication to be a clerical error, since the explanations in the Office Action relating to § 102(e) do not mention these claims. In a separate discussion, the Office Action does at least partially address these claims—with regard to § 103(a). Accordingly, Applicant understands these claims to be rejected under § 103(a), and has responded to those rejections below.

claims. Applicant respectfully submits that the claims are patentable because the cited portions of *Allen* fail to disclose each limitation of the claims.

Dependent claims 61, 63, and 65.

As an initial matter, the Office Action is silent regarding limitations in a number of the rejected claims. Claims 61, 63, and 65 include limitations regarding “a path index field.” These limitations are not discussed in the pending Office Action. Further, Applicant does not find these limitations in the cited portions of *Allen*. At least for these reasons, claims 61, 63, and 65 are allowable under § 102(e).

If the Examiner maintains the rejections of these claims by introducing new grounds of rejection, Applicant respectfully notes that those grounds must be presented in a subsequent **non-final** Office Action, in accordance with M.P.E.P. § 706.07(a) (since the new ground of rejection would not be necessitated by Applicant’s amendment of the claims or a suitable Information Disclosure Statement).

Dependent claims 40-52.

The Office Action similarly does not address each limitation of claims 40-52. On p. 5, the Office Action simply asserts that “the limitations of these claims have been addressed in claim 38.” Applicant notes that a number of limitations in claims 40-52 are not addressed in the Office Action. For example, claim 40 sets forth the use of “a flush indicator field.” This limitation is simply not discussed in the Office Action.

The Office Action thus fails to establish that each of the limitations of claims 40-52 and 58-65 are present in the cited reference because the Office Action simply does not discuss the

limitations set forth in these dependent claims. At least for this reason, the Office Action fails to establish that claims 40-52 and 58-65 are anticipated by the cited reference.

If the Examiner maintains the rejections of these claims by introduces new grounds of rejection, Applicant respectfully notes that those grounds must be presented in a subsequent **non-final** Office Action, in accordance with M.P.E.P. § 706.07(a) (since the new ground of rejection would not be necessitated by Applicant's amendment of the claims or a suitable Information Disclosure Statement).

Claims 38-52 and 58-65.

With regard to the limitations in independent claim 38 of a **protocol packet “configured to record a protocol packet path from said origin node to said target node,”** on pp. 2 and 4-5 the Office Action discusses the following passages from *Allen*, (which were quoted in Applicant's previous response, dated November 6, 2006):

Each PACK message includes information regarding all of the disrupted paths that originate at the source node. Each PACK message also includes a hopcount field which is incremented as the PACK message traverses the network to reflect the number of spans traversed. In a preferred embodiment of the present invention, when the hop-count value of a PACK message exceeds a predetermined hop-count limit, the PACK message is discarded; in this way, the volume of restoration traffic is limited.

(*Allen* at 6:37-45.)

Referring again to FIG. 7, if the hop-count of the PACK message does not exceed the hop-count limit, then the tandem node records the bandwidth requested, the identity of the upstream node and the hop-count to the source node, as shown in a step 710. The tandem node then rebroadcasts the PACK message based on the number of copies of the PACK message that the tandem node has received. Tandem nodes keep track of the

number of copies using a counter or other similar means, as would be apparent to one skilled in the relevant art.

(*Allen* at 7:23-32.)

These two passages teach that “the tandem node records the bandwidth requested, the identity of the upstream node and the hop-count to the source node.” However, these passages do not describe a protocol packet that is configured “to record a protocol packet path” from an origin node to a target node. Recording a hop-count and an identity of an upstream node, as disclosed in *Allen*, is not the same as recording a protocol packet path, as is required in Applicant’s claim 38.

The Office Action proposes on p. 2 that the cited portions of *Allen* are sufficient to meet Applicant’s claim 38 because claim 38 “does not require how the step of recording packet is performed.” Even if this assertion were correct (a proposition which Applicant does not concede), it fails to support the pending rejection. The cited passages of *Allen* fall short of disclosing Applicant’s claim 38 not only because they fail to describe how a protocol packet that is configured “to record a protocol packet path,” but also because they fail to describe the recording of such a path at all. While the cited passages of *Allen* could be construed as teaching that a hop-count and an identity of an upstream node are recorded, they in no way disclose the recording of a protocol packet path, as set forth in Applicant’s claim 38.

The Office Action presents an argument that appears to depend on a teaching that is not disclosed in the cited reference. The Office Action proposes on p. 3 that:

as the following tandem nodes receive and copy the pack message (see steps 714, 716, fig. 7), eventually, the pack message will arrive at the destination node carrying a record of the packet path from the source node to the destination node.

This argument appears to depend on an assumption that *Allen*'s system records an identity of an upstream node **into** a PACK message. Applicant respectfully submits that this is an incorrect understanding of *Allen*.

Where *Allen* "records . . . the identity of the upstream node" in 7:23-27, this recording is not a recoding of information into the PACK message. Rather, this recording is done into a restoration table that is described in *Allen*'s immediately preceding paragraph and in *Allen*'s Table 1. Table 1 of *Allen* shows the restoration table and includes columns for a bandwidth requested ("BW"), an identity of an upstream node ("UP"), and a hop count to a source node ("HOP"). (*Allen* at 7:5-13, Table 1.) The very next paragraph is the one on which the pending rejection is based. It describes that "the tandem node records the bandwidth requested, the identity of the upstream node and the hop-count to the source node, as shown in a step 710." This recording is achieved by the tandem node into the restoration tables held in *Allen*'s nodes; this recording is **not** achieved by writing any of these data into *Allen*'s PACK message.

Allen affirmatively describes how the PACK message is modified in 6:38-41: "Each PACK message also includes a hopcount field which is incremented as the PACK message traverses the network to reflect the number of spans traversed." While the cited passages thus teach that the hopcount field is modified in the PACK message; the cited passages do **not** teach that *Allen*'s system records an identity of an upstream node into a PACK message.

In view of these observations, Applicant respectfully submits that the cited portions of *Allen* fail to disclose the limitations of a protocol packet "configured to record a protocol packet path from said origin node to said target node." At least for this reason, independent claim 38 and all claims dependent therefrom are allowable under § 102(e).

Claims 111, 113-124, 126-137, 139-150, and 152-162.

With regard to the limitations in claim 111 of “said at least one node identifier **identifies a node in a network for which said sending node seeks a link state advertisement**,” the Final Office Action on pp. 3 and 6-7 cites the following portions of *Fukushima*:

Meanwhile, each router, while it transmits or receives Hello packets and network link-state information, manages the states of other routers on the network to which this router is connected and also manages the states of the interfaces through which this router is connected to networks. With regard to the states of routers, each router manages the routers' ID's, and checks if each of those routers is aware of this router, or checks if each of those routers has completed the transmission and reception of network link-state information. With regard to interface state, each router manages the addresses of the interfaces and other routers connected to a network to which an interface is connected.

A list of other routers, which is included in a Hello packet, is prepared according to the states of routers and the states of interfaces mentioned above.

Each router monitors the active modes of the other routers according to information from Hello packets it receives. More specifically, if there is any other router from which the router has not received Hello packets for longer than a fixed period, the router decides that a failure has occurred in this other router.

(*Fukushima* at 2:10-32.) These passages from *Fukushima* teach that each router checks if each other router on the network, to which the router is connected, is aware of the router, or checks if each of those routers has completed the transmission and reception of network link-state information. However, these teachings fall short of disclosing the limitations of Applicant's claim 111. In particular, there is no indication in *Fukushima* that the Hello packet identifies a node for which a sending node seeks **a link state advertisement**.

As set forth on p. 17 of Applicant's originally filed Specification, one implementation of a link state advertisement describes the state of a node's links. For example, the link state advertisement may contain "a list of the node's neighbors, links, the capacity of those links, the quality of service available on over links, one or more costs associated with each of the links, and other pertinent information."

Even if the *Fukushima* system employs a link state advertisement (and Applicant does not concede this point), the cited passages do not disclose that a node seeks a link state advertisement from a particular other node through the cited Hello packets (or through any other packets). More particularly, the cited material does not teach that the *Fukushima* Hello packets (or any other packets) are employed by a sending node to seek a link state advertisement from another node. And further, the cited material certainly does not teach that the Hello packets (or any other packets) identify the node "for which said sending node seeks a link state advertisement." These limitations are therefore absent from *Fukushima*.

At least for these reasons, independent claim 111 and all claims dependent therefrom are allowable under § 102(e). At least for similar reasons, claims 124, 137, and 150, and all claims dependent therefrom are also all allowable.

*Rejections Under § 103(a)***Claims 163, 177, 191, and 205.**

Claims 163, 177, 191, and 205 stand rejected under § 103(a) as being unpatentable over *Fukushima* in view *Dobbins*. Applicant respectfully submits that the claims are allowable because the cited portions of the references fail to disclose each limitation of the pending claims.

For example, independent claim 163 includes receiving a hello packet at a downstream node. The received hello packet includes a link state advertisement. Claim 163 also includes limitations of **“processing said link state advertisement, wherein processing said link state advertisement includes sending said link state advertisement from said downstream node”** (emphasis added). With regard to these limitations, the Office Action cites the following passage from *Fukushima*:

Meanwhile, each router, while it transmits or receives Hello packets and network link-state information, manages the states of other routers on the network to which this router is connected and also manages the states of the interfaces through which this router is connected to networks. With regard to the states of routers, each router manages the routers' ID's, and checks if each of those routers is aware of this router, or checks if each of those routers has completed the transmission and reception of network link-state information. With regard to interface state, each router manages the addresses of the interfaces and other routers connected to a network to which an interface is connected.

(*Fukushima* at 2:10-22.)

The Office Action appears to equate Applicant's link state advertisement with *Fukushima*'s network link-state information. Even if this characterization of *Fukushima* is correct (and Applicant does not concede this point), the cited portions of the references fail to

disclose each limitation of claim 163 because the cited portions fail to teach the act of “sending said link state advertisement from said downstream node.”

With regard to the act of sending the link state advertisement from the downstream node, the Office Action asserts on p. 7 that the “checking each of routers mentioned above **inherently** compris[[es]] sending link states from the router through the other routers in the network.”

The Final Office Action fails to meet the appropriate standards for an assertion of inherency. According to the *Manual of Patent Examining Procedure* (Ed. 8, Rev. 5, Aug. 2006), “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” (MPEP § 2112(IV) (internal quotations omitted).) The Final Office Action does not meet this standard, since it merely asserts the inherent nature of various features without explanation.

That which the Office Action claims to be inherent is not. A person having ordinary skill in the art would not find that *Fukushima*’s checking inherently includes an act of sending, from a downstream node, Applicant’s said link state advertisement—which is the link state advertisement received at the downstream node, according to the claim language. The cited portions of *Fukushima* describe the transmission or reception of network link-state information by routers, and the checking of this transmission or reception. The cited portions do **not** describe or fairly suggest that a downstream node receives a link state advertisement and also sends that link state advertisement.

With regard to this limitation of “sending said link state advertisement from said downstream node,” the Final Office Action merely states the conclusion that this limitation is

inherent in the cited passages of *Fukushima*. This conclusory statement does not support the pending rejection. The act of checking other routers does not render “inherent” the claim limitation of “sending said link state advertisement from said downstream node.”

Accordingly, Applicant respectfully disagrees with the assertion of inherency with regard to claim 163. If it is the Examiner’s position that the rejection is based on a personal knowledge that these limitations are well-known, Applicant requests that the facts be supported by an affidavit from the Examiner in accordance with MPEP § 2144.03(C) and 37 C.F.R. § 1.104(d)(2).

At least for these reasons, Applicant respectfully submits that independent claim 163 and all claims dependent therefrom are allowable under § 103(a). At least for similar reasons, independent claims 177, 191, and 205 and all claims dependent therefrom are also allowable under § 103(a).

Dependent claims 113-123, 152-162, 165-176, and 207-218.

Claims 113-123, 152-162, 165-176, and 207-218 stand rejected under § 103(a). The Office Action states on p. 8 that:

Claims 113-123, 152-162, 165-176, and 207-218 are **rejected because they depend on their parent claims.**

(Emphasis added.) The Office Action presents no further discussion is with regard to these claims. Applicant respectfully submits that the proposed grounds for the rejection of these claims is not a proper basis for rejecting claims under § 103(a). A claim may be rejected under § 103(a) only if the cited references disclose each limitation of the claim. In this case, the Office

Action has not shown that the limitations of these claims are disclosed in the cited references because the Office Action has not even attempted to discuss the limitations in these claims.

37 C.F.R. § 1.104(c)(2) provides:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Applicant respectfully submits that the particular parts of the cited references that the Office Action has relied upon have not been designated as nearly as practicable, as required by § 1.104(c)(2). In particular, the Office Action does not point to any features of the cited art in support of the rejections of claims 113-123, 152-162, 165-176, and 207-218. The Office Action thus fails to meet the standards in § 1.104(c)(2) for setting forth a rejection under § 102. At least for this reason, the rejections of claims 113-123, 152-162, 165-176, and 207-218 should be withdrawn.

If the Examiner maintains the rejections of these claims by introducing grounds for the rejections, Applicant respectfully notes that those grounds must be presented in a subsequent **non-final** Office Action, in accordance with M.P.E.P. § 706.07(a) (since the new ground of rejection would not be necessitated by Applicant's amendment of the claims or a suitable Information Disclosure Statement).

Dependent claims 126-136, 139-149, 179-190, and 193-204.

Claims 126-136, 139-149, 179-190, and 193-204 stand rejected under § 103(a) as being unpatentable over *Fukushima*. The Office Action states on p. 8 that:

Claims 126-136, 139-149, 179-190, and 193-204 are **rejected because they depend on their parent claims.**

(Emphasis added.) The Office Action presents no further discussion is with regard to these claims. Again, Applicant respectfully submits that the proposed grounds for the rejection of these claims is not a proper basis for rejecting claims under § 103(a). The Office Action has not shown that the limitations of these claims are disclosed in the cited references because the Office Action has not even attempted to discuss the limitations in these claims.

Applicant respectfully submits that the particular parts of the cited references that the Office Action has relied upon have not been designated as nearly as practicable, as required by § 1.104(c)(2). In particular, the Office Action does not point to any features of the cited art in support of the rejections of claims 126-136, 139-149, 179-190, and 193-204. The Office Action thus fails to meet the standards in § 1.104(c)(2) for setting forth a rejection under § 102. At least for this reason, the rejections of claims 126-136, 139-149, 179-190, and 193-204 should be withdrawn.

If the Examiner maintains the rejections of these claims by introducing grounds for the rejections, Applicant respectfully notes that those grounds must be presented in a subsequent **non-final** Office Action, in accordance with M.P.E.P. § 706.07(a) (since the new ground of rejection would not be necessitated by Applicant's amendment of the claims or a suitable Information Disclosure Statement).

Claims 53-57 and 66-70.

Claims 53-57 and 66-70 stand rejected under § 103(a) as being unpatentable over *Allen* in view of *Fukushima* and further in view of *Dobbins*. Applicant respectfully submits that the claims are allowable because the cited art does not teach each limitation of the pending claims. For example, claims 53-57 and 66-70 depend on independent claim 38, and are therefore allowable under § 103(a) at least for the reasons described above with respect to claim 38. At least for this reason, the rejections under § 103(a) of claims 53-57 and 66-70 should be withdrawn.

Applicant further notes that the Office Action does not discuss the limitations of claims 66-68. The Office Action thus fails to support the rejections of these claims. For at least this additional reason as well, the rejection under § 103(a) of claims 66-68 should be withdrawn.

CONCLUSION

Applicant submits that all claims are now in condition for allowance, and an early notice to that effect is earnestly solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia, 22313-1450, on June 27, 2007.


Attorney for Applicant

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Date of Signature

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